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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,162	09/04/2003	George A. Locko	921042.449	6804

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EXAMINER

ZEMEL, IRINA SOPJIA

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 10/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/655,162

Applicant(s)

LOCKO ET AL.

Examiner

Irina S. Zemel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4-20-05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 21-24 and 27-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmer of record in combination with Hawley's Condensed Chemical Dictionary, eleventh edition, page 1015, (hereinafter "Dictionary").

The rejection stands as per reasons of record. In addition, as discussed in the previous office action, Lemmer discloses a process of producing a resin by reacting a rosin and a co-reactant. i.e., terpene-phenol resin in the presence of boric acid (Bronsted acid). The resulting resin has an acid number of less than 20. See illustrative example 1. Among suitable terpenes, limonene, dipentene, etc., are explicitly disclosed in column 3, lines 11-15.

The reference does not expressly disclose the source of the rosin used in the examples, however, the invention expressly discloses that the source and type of the fatty acid is not critical, and, thus, implying that any rosin regardless of the source would be suitable for the invention. It is notoriously known in the art that rosins, having the same general chemical formula, can be derived from several sources, such as wood (wood rosin), tall oil (tall oil rosin), turpentine oil (gum rosin), etc.. In view of the fact that the rosins claimed by the applicants are the MOST common rosins in the art (as shown by the Dictionary and disclosed by the applicants on page 5 of the instant application), it is not unreasonable to assume that the rosin disclosed by the Lemmer reference is

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inherently one of the claimed rosins. However, even if, the rosin disclosed in the reference is not one of the claimed rosins, use of rosin (higher fatty acid) that corresponds to either one of the claimed rosins would have been clearly obvious in view of known chemical equivalence of all rosins, (as disclosed in the Dictionary and admitted by the applicants on page 5), and in view of the disclosure of Lemmer that various types of fatty acids are suitable for the invention in the absence of showing of unexpected results that can be clearly attributed to the specific source of rosin.

As further discussed in the previous office action, the reference does not specifically address (outside of the examples) the suitable ratios of the two main components, thus implying that any ratio of the components that will produce desired degree of esterification is suitable for the invention disclosed by Lemmer, with reasonable expectation of adequate results. Therefore, the amounts and ratios as claimed in claims 23-24 would have been obvious absent showing of unexpected results.

As far as claim 37 reciting the step of forming of the claimed terpene-phenol resin, this step is met by expressed disclosure in column 3, lines 6-17.

The invention as claimed, thus, would have been obvious from the combined disclosure of the above cited reference in the absence of showing of unexpected results.

Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmer in combination with the Dictionary as applied to claims 21 and further in combination with Irie of record.

The rejection of claims 24-25 are rejected over the combined disclosure of the cited references for the reasons set forth in the previous office action as applied to claims 9 and 10.

Response to Arguments

Applicant's arguments filed 8-20-2005 and 3-28-2005 have been fully considered but they are not persuasive. The applicants argue that the Lemmer reference fails to teach or suggest reacting wood rosin, tall oil rosin and/or gum rosin with a terpene-phenol. Obviousness of choosing any one of the claimed rosin as the most common rosin types is discussed above. The applicants further argue that the reference fails to define "rosin, and that such information is critical to understanding of meets and bounds of the examples. The examiner simply can not agree with this argument. The source of rosin is absolutely not critical for the invention of Lemmer or to understanding the examples, since all it is required in the presence of certain amount of fatty acid for reaction with the resin, and it is present in virtually ANY rosin, regardless of its source. There is nothing on the record that shows the criticality of choosing specifically claimed rosin and no unexpected results that can be attributed to this choice are present on the record. Quite to the contrary, on page 5 of the instant specification the applicants expressly admit that a wide variety of commercially available rosins is suitable for the claimed invention, and suitable rosins can be obtained from many different sources. Thus, this argument is not persuasive.

The applicants further argue that Lemmer fails to disclose or suggest reacting rosin with terpene-phenol at a weight ratio ranging from 60/40 to 40/60. While the examiner agrees that the reference does not expressly disclose the claimed ratio, the previous office action explicitly addressed this issue and shifted burden to the applicants to provide evidence of criticality of the claimed ratio. None is provided in either the original specification or in the response. Instead of providing factual evidence of criticality, the applicants argued that "even though US'156 discloses that 400 parts terpene-phenol can be reacted with 250 parts linseed oil fatty acids, US'156 fails to disclose whether or not "parts" is based on weight. Such information is critical to the understanding of the examples, and therefore, critical to office's interpretation thereof." The examiner can not agree with this argument either. In the absence of indication to the contrary, an ordinary chemist would understand the parts to refer to weigh parts for the reaction involving resinous polymers. However, if this is not the case, it is immaterial to the understanding of the examples whether the parts in the examples are given by weight or by volume (there are no other choice for reacting the solid or liquid-like substance), since the difference would be quite small anyway. But even if the difference is significant, the criticality of the claimed ratios is not shown anywhere in either the specification and the response, and obviousness of varying the amounts of the reactants was previously expressly discussed. See previous office action.

By showing different ratios in the examples does not constitute teaching away from the claimed ratios, rather it constituted disclosure of different possible embodiments. Nowhere in the reference it is stated or suggested that lower ratios are

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undesirable or would not work in the invention of Lemmer. Moreover, the reference expressly discloses that excess amounts of either reactant can be used.

Once again, in the absence of showing criticality of the claimed reactant ratios, the ratios are considered to have been obvious in view of the teachings of Lemmer expressly disclosing ratios that are close to the claimed ratios and further providing expressed guidance as to how to calculate the desired amounts of the reactants with possibility of excess use of either of the reactants.

In response to applicant's arguments against the Irie reference individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The rejection was never based on Irie alone, and the examiner never alleged that the Irie reference discloses all of the claimed elements.

In response to applicant's argument that the Irie and the Lemmer reference is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both references are concerned with esterification reaction of hydroxyl groups with acid groups, and use of Bronsted acid as dehydration catalyst. An ordinary chemist would have been clearly aware that the same catalysts can be used and are suitable for use in analogous reaction processes even though the reactant

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may vary in nature as long as the base reaction is similar, which is exactly the case in combining the cited references.

The invention as claimed, thus, is still considered to have been clearly obvious from the combined disclosure of the above cited references.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

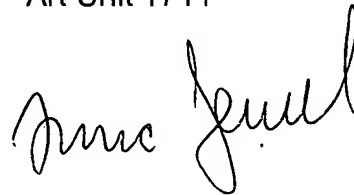
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irina S. Zemel
Examiner
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ISZ

A handwritten signature in black ink, appearing to read "Irina Zemel", is written over the printed name and title.